A Case of Snake-Bite (Maticora intestinalis)

By DR. EDW. JACOBSON, *Bandoeng, Java*

As far as I have been able to ascertain no case of a person being bitten by the snake *Maticora intestinalis* (Laurenti) has come under medical observation, at least I have not been able to find any record in the literature available to me. It may, therefore, be useful to describe here a case which recently happened at Bandoeng (Java).

Maticora intestinalis, the coral snake, called in the Javanese language *ular chabe* (chabé=chili pepper) on account of the vermilion colour of the underside of its tail is remarkable for the position of its poison glands which are not confined to the head, but occupy the anterior third of the body.

According to Dr. F. Kopstein ("De Javaansche Giftslangen") nothing is known about the effect of its poison on men, and very little has been revealed of its reaction on animals. Marie Phisalix in her standard work on snakes says about the poison of *Doliophis* (=*Maticora*). "On ne sait rien sur le venin des quatre especes qui constituent le genre."

In the work of P. A. Ouwens "De voornaamste giftslangen van Nederlandsch Oost-Indië" we find the following passage:— "De *Doliophis*-soorten zijn voor den mensch en voor grootere dieren weinig gevaarlijk, wegens de geringe wijdte van haren bek. De werking van het gift is echter naar evenredigheid even sterk als by andere giftslangen". (The species of *Doliophis* are not very dangerous to men and big animals owing to the small width of their mouths. The effect of the venom, however, is in proportion as strong as that of other poison snakes".).

The experiments, conducted by Dr. F. Kopstein to study the effect of the venom on Munia's and fowls, showed that for the first named a small dose was fatal and killed the birds within a very short time, whereas the fowl recovered after two days.

Being engaged recently in making a collection of Javanese snakes for the Raffles Museum, a specimen of *Maticora intestinalis* was brought in by one of my native collectors. The specimen measured 492 mm. According to Dr. Nelly de Rooy ("The Reptiles of the Indo-Australian Archipelago"), this species reaches a length of 580 mm.

As I had handled previously a number of these snakes without using forceps and trusting to the statement in

Mr. Ouwens' book that they are harmless to men, I took hold of the animal without taking any precautions. The snake had just moulted and fragments of the old skin were still adhering to its body. When I tried to remove these the snake bit my finger. Under ordinary circumstances this would not have been possible, as the size of its mouth is so small that it could not have seized my finger. Unfortunately the snake got hold of the skin at the base of my index and in this way was able to implant one of its fangs. Luckily the second fang did not penetrate the skin. I removed the snake at once and tried to squeeze out as much as possible of the venom by a vigorous massage.

Immediately after the bite I felt a slight stinging pain in the wound. Gradually some swelling and redness of the skin showed at the base of the index finger at the inner side of my hand, which spread to the base of the middle and ring fingers. About an hour later the redness had disappeared and also the œdema was less. Only an insignificant swelling remained which made it a little difficult to close my hand. I thought that all ill-effect of the bite had disappeared, when two hours and a quarter later I was suddenly overcome by a severe fit of oppression and dizziness. I rushed to the telephone to summon a doctor, but was not able to do so, owing to giddiness, and I could hardly stand on my feet. When I managed with difficulty to reach my bed and lay down the symptoms gradually decreased. My wife immediately summoned the family doctor and also telephoned to the Institute Pasteur for anti-venine.

During the dyspnœa my face showed an excessive pallor, the mouth became very dry and the throat was swollen, so that it was difficult to swallow. I wildly tossed myself to and fro under the influence of the threatening suffocation. When the doctor arrived three hours after I had been bitten he administered at once two camphor injections as excitansia.

After a quarter of an hour a second attack occurred. The respiration was very difficult, cold perspiration broke out, and vomiting set in. These attacks succeeded each other with gradually increasing intervals of fifteen to thirty minutes, each one not lasting more than five to ten minutes. In all I suffered five or six heavy attacks as well as some lighter ones.

The peristaltic movement of the bowels was very much increased and frequent evacuations of watery stools took place.

During the intervals between the attacks my condition was not alarming and I was able freely to converse with the doctors. The symptoms described above are typical for the poison of the *Elapinae*. In more serious cases numbness of the body, flow of saliva, and an irresistible desire to sleep are recorded, but in my case these symptoms did not appear.

Whereas the poison of other *Elapinae* such as *Bungarus, Naja,* and *Acanthophis* causes first an acceleration, followed by a steadily decreasing and finally a standstill of the pulse, in my case the pulse was only a trifle accelerated, *viz.* 80, my normal pulse being from 75 to 78. The body temperature also remained normal. The whole evening I felt a slight pain at the back of my head.

Some five hours after I had been bitten I was overtaken by chattering of the teeth, shivering of the whole body, and a slight cramp of my jaw. At the same time my feet and hands were icy cold, but the temperature of my body remained normal.

Gradually all alarming symptoms subsided and six hours after the bite the attacks ceased altogether. After taking some tablets of Bromural I slept an uneasy sleep, interrupted by repeated evacuations.

The next morning I felt rather shaky as if I had pulled through a severe illness, and the whole day I had frequent motions.

It may perhaps cause astonishment that I had no recourse to an injection against snake-bite, but for this I had several reasons. The time that elapsed between the bite and the first attack was rather long, so it was very probable that all the poison had already been absorbed by the nervous centres. It was also very doubtful whether the available serum would have any effect on the poison of *Maticora.* For the production of the serum at the Institute Pasteur the horses which provide the serum are treated with the poison from *Naja, Bungarus, Lachesis,* and *Agkistrodon,* and it is open to doubt whether this will act on the poison from *Maticora,* which probably has a different composition. On the other hand I risked contracting serum disease with its very unpleasant consequences. I, therefore, preferred to run the risk, the more so as a fatal issue was very improbable.

My case, at all events, has demonstrated that the poison of *Maticora* may cause, even with men, more serious symptoms than has been assumed up to now.

I am convinced that if both the snake's fangs had penetrated my skin and discharged their full measure of poison, the effect would have been very serious indeed.